COVER SHEET

Will the concept of 'sustainable development' provide any solutions for the 21C

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The concept of sustainable development and/or sustainability has and continues to be widely recognised and cited. This concept appears designed to remove the conflict out of the debate over environmental quality versus economic growth, which was evident in the 1960s and 1970s, during the surge in the environmental movement. Sustainable development, with its origins in mainstream economic ideology, suggested that the essence of the conflict could in fact be complementary, achieving growth in an environmentally and social benign way. Critics raise concerns with the change in the debate, with its direction of ‘we can have it all’. As a consequence of mainstream ideological dominance, and the emergence of concepts like ‘sustainable development’, the underpinning contradiction between economic growth, further capital accumulation and environmental pressure has been under-discussed. Moreover, the concept of sustainable development has appeared to be politically attractive to diverse entities. Organisations, governments and enterprises are developing initiatives to promote the concept. However, it is uncertain if these initiatives have resulted in actual progress towards sustainability. Proposed solutions appear to be limited to a further application of neoclassical economic theory. This would be seen as ‘business as usual’ for many countries. This paper argues that a concept which ignores the tensions between the social, economic and environmental forces, and a system based on capital accumulation might not provide solutions which ensure a sustainable future.

Keywords; sustainable development; sustainability; societal change.

Introduction

It is generally acknowledged that human activity has some form of impact on ecological systems. In the 1960s concerns with growing environmental degradation resulting from rapid industrialisation, particularly the post- World War II global economy boom, gained momentum in the developed world (Clapp & Dauvergne, 2005). During this period the debate was framed in terms of environmental quality versus economic growth, and implied the need to limit growth in order to preserve quality habitats for humans, as well as other species. However, in the 1970s this debate experienced a dramatic turn to the notion that growth could be achieved in an environmentally and social benign way (Pearce & Warford, 1993; Moffatt, 1995; Dowie 1995; Esobar 1996). This essence of the debate was subsumed into the rise of the concept of sustainable development. The underlying conflict between economic growth and its impact, environmental pressure, appears to be under-discussed within sustainable development. Critics raise concerns with the change in the debate, and with its direction of 'we can have it all'.

Sustainable development as a concept has become widely recognised and cited, and it appears to be politically attractive to diverse entities. Various economic and cultural organisations, governments and enterprises are developing initiatives to promote the concept. However, it is uncertain if these initiatives have resulted in actual progress towards the preservation, restoration or appropriate use of diverse and quality habitats. The concept of sustainability appears designed to remove conflict out of the debate over the use of environment by assuming that further economic growth can result in socially and environmentally neutral outcomes.

An understanding of the historical context in which this assumption has developed will assist in understanding how and why it has earned such widespread cachet. Moreover, economic growth and the environment will be analysed to ascertain how harmonious this relationship is, if at all. It is argued that by not debating the tensions between the society, economy and the ecology and a system based on capital accumulation, we might not be able to provide the solutions, which ensure a genuinely sustainable future.

Rise of sustainable development

Historical context of sustainable development

The concept of sustainable development was first widely disseminated in a 1987 United Nations-sponsored report entitled *Our Common Future* – also known as the Brundtland Report. The Brundtland definition remains the most commonly quoted definition of sustainable development, stating that it '…is development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED 1987, p. 43).

While the Brundtland report provides the most widely disseminated definition of sustainable development, it was not coined by this organisation. In the late 1960s the concept of sustainability originated in the context of renewable resources, like the forest and fisheries. The concept was subsequently adopted as a broad slogan by the environmental movement (Lele 1988 cited in Lele, 1991). The derivative of sustainability, sustainable development, which has become the focus of the debate, has its origins within the Stockholm Conference, held in 1972.

The historical context of the rise of sustainable development is well summarised by McManus (1996). The 1960 and 1970s was a period of growing ecological awareness. There was a widening North-South disparities and agendas, the South more immediate concerns like poverty, and hunger, and less concern with environmental issues from industrialisation like that of the North. It was a period that was experiencing the rise of global neo-liberalism. Neo-liberalism was becoming a dominant discourse in many of the developed world countries, including the United States and the United Kingdom, particularly under the governance of Reagan and Thatcher. Therefore, it is no surprise that there was increasing opposition to the suggestion of limiting economic growth in some advanced capitalist nations. Neoliberalism and its rise in this period provide the political and economic context to the term sustainable development. Rather than directly confronting neoliberalism, the seductive notion of sustainable development was born (McManus, 1996).

All of these factors described by McManus provide an understanding of the historical context to the rise of sustainable development. However, an investigation of the growing ecological awareness and the role of neo-liberalism in this period would contribute to furthering the understanding of the context of the rise of sustainable development. The change in the direction of the debate that led to the rise of the current understanding of sustainable development happened during a period of growing ecological awareness, with a focus on the impact of industrialisation on the environment. The rise of neoliberalism simultaneously seems, however, to have particularly influenced the dramatic turn in the debate to the notion that growth could be achieved in an environmentally and socially benign way.

Period of growing ecological awareness and the role of neo-liberalism

The surge in concern for the environment began in the 1960s and 1970s. For two decades after World War II the global economy boomed, a time of rapid development of capitalism. Concerns with the growing environmental degradation resulting from this rapid industrialisation gained momentum in the developed world in the 1960s (Clapp & Dauvergne, 2005).

Reflections of the intensity of this period, 1960s and 1970s, the following observations have been identified. One third of all environmental non-government organisations (NGOs) worldwide were founded after 1972. This led to the establishment of approximately 7,000 environmental NGOs from 1972 to 1992. In 1972 national environmental agencies existed only in 12 countries. Today it would be difficult to identify a country without a national environmental agency. The surging interest in environmental issues is also reflected in the establishment of environmental treaties, three quarters of international environmental treaties were established in the last 30 years. Moreover most Western democracies now have established and active Green Parties, yet the first political Green Party was only established in New Zealand in 1972. These statistics illustrate the environmental surge in the 1960s and 1970s (McCornmick cited in Venning & Higgins, 2001).

Venning & Higgins (2001) attribute five significant factors to the surge in ecological concern. Firstly, in 1962 Rachel Carson published *Silent Spring*, 'credited with laying the foundations for the modern era of environmental awareness and social concern in developed countries' (Rao 2000, p. 7). This book raised the awareness of the environmental damage and human health risk of pesticides, especially dichlorodiphenyltrichloroethane (DDT) (Venning & Higgins, 2001).

Secondly, broad social changes in the West were questioning values and ways of life. Consumerism, for example was being questioned. Significant protest movements occurred, in particular the movement against the Vietnam War and the fight for civil rights,

which created an atmosphere of radicalism. Thirdly, two significant environmental disasters in the 1960s received wide publicity: 117,000 tonnes of oil spilt from the container vessel *Torrey Canyon* on the west coast of England in 1967; and then mercury contamination in the human food supply through seafood induced neurological damage for thousands of Japanese in the townships of Minamata and Niigata. The contamination occurred from the waste of factories discharged into local waters (Venning & Higgins, 2001).

Fourthly, there was a rise of anti-nuclear movements as a response to nuclear weapons testing. Finally, scientific understanding of the impact of human activity on the environment was increasing. In particular, the health effects of pollution became more recognised.

During this period of strong ecological concern, the debate was characterised as environmental quality versus economic growth (Pearce et. al 1989; Pearce & Warford 1993). This meant either economic growth, or improved environmental quality. The trade off required between the two forces, environmental and economic, was the focus of the debate. The influential Club of Rome publication, *Limits to Growth*, expressed this debate and was launched during this period. *Limits to Growth* predicted doomsday catastrophes if economic growth was not limited.

Well-known critics refuted the limits to growth arguments. John Maddox, author of *The Doomsday Syndrome* believed that environmental problems would be solved through legislation, science and technology. Herman Kahn and the US Hudson Institute believed that intelligence and good management in addressing current problems will allow economic growth to continue (Beder, 1993).

By the end of the 1970s the 'limits to growth' argument and debate was no longer present in mainstream discourse. Predictions of disasters and depletion of resources had not become manifest, at least in the short-term. Moreover, libertarian think tanks were successful in refuting the 'limits to growth' argument. For example, well financed think tanks like the US Hudson Institute successfully contributed to the elimination of the need for limits to growth (Beder, 1993).

Convincing rich countries to reduce growth was eventually seen to be too difficult, in particular, with the rise of global neo-liberalism. Neoclassical economic theory emphasises the economy with the environment and society as subsets. Furthermore, the perception of the capabilities of traditional economic models from the 1970s to the 1980s had changed. Traditional economic policies, the original aims of which were to raise real income, were extended to incorporate both growth and environmental outcomes (Pearce & Warford, 1993). These factors contributed to a turn in the debate, to the notion that growth could be achieved in an environmentally and social benign way. This change in the debate led to the formation of sustainable development.

In summary, the decades of the 1960s and 1970s witnessed a surge in the environmental movement as a result of impact of capitalism on the environment. Environmental degradation was made very visible by the externalities of capitalism including catastrophic events such as the *Torrey Canyon* disaster. However, late in this period saw a change in the direction of the debate from economic growth versus environmental wellbeing to these elements being seen as complementary. Critics have identified the change in the focus of the debate led to the development and acceptance of sustainable development. Factors that contributed to this change in the debate included impossibility of persuading the rich countries that they need not get richer particularly with the rise of neo-liberalism, well financed think tanks in refuted the limits to growth argument, changing perceptions about the traditional models of economic growth and the predicted disasters and depletion of resources did not manifested.

Essence of sustainable development: economic growth and environmental health

As sustainable development was emerging, it was identified that this concept, was about 'reconciling the interests' of the development community with those of the environmental movement (Khosla cited in Lele 1991, p. 610). While reconciling the interests between such groups is an interesting proposition, Jacobs (1991, p. 59) perhaps provides more clarity to the situation; 'By linking environmental protection to economic development, 'sustainable development' appears to smother the conflicts between these aims'. As Jacobs (1991) further elaborates the Greens, for many years, have argued that industrial expansion causes environmental damage. At the point where the extent of damage gave the Greens, a conclusive case, the term sustainable development appears 'like a magic wand to wave away such conflicts in a single unifying goal' (Jacobs 1991, p. 59). The term sustainable development installed the belief that 'everyone can be both rich and green' (Jacobs 1991, p. 59). This belief that everyone could achieve both economic growth and consideration for the environment was well illustrated by Jacobs, drawing on the following example. The UK government responded to the Brundtland report stating that its economic policy already conforms to the arguments of sustainable development, resulting with 'business as usual'.

Sustainable development does not include 'a cultural critique of modern society nor of industrial progress, consumption or limitless economic growth' (Harvey cited in Beder 2004, p. 3). Environmental protection is not seen to oppose development, it now accommodates economic growth, business interests and the free market. As sustainable development accommodates these factors it does not propose a threat to the power structures of modern industrial societies (Beder, 1993). Furthermore, Beder (1993) explains that much of the language and concepts surrounding sustainable development borrows heavily from economics such as natural resources, and communities stock of assets. The use of economic language has helped to re-enforce this concept as mainstream.

In 1987 the World Commission on Environment and Development (WCED) released the influential publication *Our Common Future*, commonly referred to as the Brundtland Report. This report provides a good insight into lying concepts of sustainable development. The Brundtland Report proposed a strategy designed to bridge the divide between the north and the south and between the various ideologies present in the debate including neoliberalism and environmentalism. The report proposed; economic growth and industrialisation need not be harmful to the environment. The report also argued that poverty harmed the environment as much as industrialisation, which was in line with Third World sentiments. Limits to growth was also not seen as necessary (Clapp and Dauvergne, 2005). Sceptics have therefore referred to the Brundtland Report giving a passive role to the environment (Norton cited in Turner, 1993).

The report suggests the further application of neoclassical economic theory through the need to maintain and revitalise the world economy, in particular through the implementation of the following objectives and policy goals;

> … more rapid economic growth in both industrial and developing countries freer market access for the products of developing countries, lower interest rates, greater technology transfer, and significantly larger capital flows, both concessional and commercial (WCED 1987, p. 89).

This strategy proposed by the Brundtland Commission did not challenge the current ideology, neoliberalism. This is because economic growth could continue, along with global economic integration. For many of the developed countries involved in events that contributed to the rise of sustainable development such as the Stockholm Conference, the

Brundtland Report, and later the Earth Summit, the application of neo-classical economic theory would have meant 'business as usual'. These economic policies have been actively applied in many of the participating countries at these international events.

No solutions were proposed to address the underlying tensions between the dimensions of sustainability. Clapp and Dauvergne (2005) did identify that the Brundtland Report challenged some neoliberalism thought such as redistribution between the rich and poor. However, due to the dominance of the current ideological agenda this 'ensured that the global community focused on the fully acceptable compromise of sustainable development' (Bernstein cited in Clapp and Dauvergne 2005, p. 61).

The Brundtland report does touch on the concept of limits. Limits are quite different to these proposed by Meadow et. al. (1972). Meadows et. al. sees the limits with growth trends, and if not addressed this would result in uncontrollable decline in both population and industrial capacity. The limits in the Brundtland report are described as limitations with current technology and social organisation on environmental resources and by ability of the biosphere to absorb the effects of human resources (WCED, 1987). The reasons for not establishing a natural limit are that technology advancement and social organisation are seen to be able to be managed and improved to be able to make way for further economic growth. This non-establishment of a level of critical natural capital suggests to skeptics that the environment is given a passive role in the Brundtland report (Norton cited in Turner 1993, p. 4). Norton further states 'it does not impose any non-negotiable limits on sustainable use, independent of limitations on the abilities of humans to control it'. This re-enforces and to an extent enables the notion that economic growth, society well-being and environmental protection to be fully compatible. As there are no benchmarks it is unknown what could be an acceptable sustainable limits.

In summary, the Brundtland report created enormous momentum for the concept of sustainable development. It also embedded the mainstream approach to solving environmental degradation, reflected within the key assumptions of the sustainable development discourse. The solution to industrial development impact on the environment was tweaking of the market system. The rich countries also saw this approach in particular as business as usual. Skeptics have therefore raised concerns that this concept has given the environment a passive role within this report. For the concept of sustainable development to progress beyond easy (and ultimately unsustainable) affirmations of "we can have it all" the underlying tensions between economic development and environmental health must be debated and further understood.

The relationship between economic growth and the environment health

The assumption within sustainable development of a harmonious relationship between economic growth and environmental degradation needs to be further discussed and debated. Two different approaches that provide insight into the question of the possibility of a harmonious relationship between economic growth and environmental degradation are posited by Newmayer (2003) and Diamond (2005). Neumayer (2003) looks at the relationship between different types of environment indicators with rising income to make an assessment of the relationship between economic growth and environmental health. Diamond (2005) outlines what he believes are the 12 major environmental issues and why this path is unsustainable.

Neumayer (2003) outlines the impact of economic growth can be both positive and negative for the environment. Three different scenarios need to be considered to develop an understanding of the relationship between economic growth and the environment. Neumayer (2003) assumes within his analysis that with economic growth incomes rise, therefore reference to made between environmental indicators and income.

Firstly, some environmental indicators show an unambiguous improvement with economic growth. With economic growth, incomes rise, which leads to greater access to provisions like clean water and adequate sanitation. Therefore, this scenario would conclude that there is a positive relationship between economic growth and environmental wellbeing.

Secondly, some environmental indicators show with rising incomes, initially a period of deterioration happens until a certain level of income is reached. Once a certain level of income is reached then improvement in these environmental indicators takes place. Examples include emission of suspended particular matter, sulphur oxides, faecal coliforms, the quality of air and the rate of deforestation. This improvement in the environmental indicator is possible because with some by products of economic activity like sulphur and nitrogen oxides they can be more easily eliminated than ones that will be outlined in the third qualitative case. Therefore, this scenario cannot conclude either way if the relationship between rising incomes and the environment is positive or negative, it depends at which stage the income level is.

Lastly, some environmental indicators show an unambiguous deterioration in specific aspects of environmental quality as income rises. Examples include carbon dioxide, generation of municipal waste. Differing from by products of sulphur and nitrogen oxides (the second scenario), carbon dioxide and solid waste is not as easily dispose of (Neumayer, 2003). This scenario would conclude with rising incomes results with a negative relationship on the environment.

Neumayer (2003) concluded that there can no definite relationship drawn between economic growth and environmental health. This relationship needs to be carefully analysed with a range of environmental indicators to gauge the environmental consequences of economic growth.

Diamond (2005, p. 486) takes a different approach and outlines what he sees as the 12 major environmental problems facing society. He concludes that the world's society is presently on a non-sustainable course. A brief outline of these major environmental problems and then his argument of the world society is presently on a non-sustainable course will be discussed.

The 12 major environmental problems are divided up into four main components.

Destruction or losses of natural resources

- Natural habitats are been destroyed and/or replaced with human habitat is happening at an accelerated rate.
- Wild foods, especially fish, contribute to the food source for humans. But the problem of the tragedy of the commons has lead to past societies overfishing their resources including Easter Island, Mangareva, and Henderson.
- Significant proportions of fauna and flora species have been lost. If the present rates continue a large fraction of what remains will be lost within the next half-century.
- Water and wind is carrying away soils on farmlands used for growing crops at a rte between 10 and 40 times the rate of soil formation. On forested land soil erosion rates are as high as between 500 and 10,000 times the rate of soil formulation.

The need for ceilings on energy, freshwater and photosynthetic capacity

- The major energy resources particularly for industrial countries, oil, natural gas and coal, known reserves will be used within a few decades. This does not mean that reserves will dry up. It means instead further reserves will be deeper underground, dirtier, increasingly expensive to extract or process, or will involve higher environmental costs.

- Most of the world's fresh water in rivers and lakes is already being utilised for irrigation, domestic and industrial water, and still over a billion people lack access to reliable safe drinking water.
- It is forecasted that by the middle of this century that most of the world's terrestrial photosynthetic capacity will be utilised. This means that most of the energy from sunlight will be utilised for human purposes, and little will be left over to support growth of natural plant communities.

Harmful things that we generate or move around

- Many toxic chemicals are released into the environment and their resulting impact like causing birth defects and mental retardation. Many of these chemicals are broken down in the environment slowly, or if at all.
- The impact of alien species, species that is transferred form a place where they are native to another place where they are not native, on the environment. There are numerous examples of where alien species have caused one-time or annually recurring damages of hundreds of millions of dollars or even billions of dollars.
- The impact of human activities that produce gases that escape into the atmosphere, like climate change.

Increase in human population

- Impact on the increasing world population on food, space, water, energy and other resources. There appears to be consensus that the world population is increasing, and with its annual percentage rate not as high as it was a decade or two ago. There is however no consensus if the world's population will stabilise at some value above its present level and when this may happen, as well whether the population will continue to grow.
- Humans impact on the environment is of greatest concern.

While Diamond (2005) reported each environmental problem separately, he does outline that these issues are linked. They are linked in a way that one problem exacerbates another or makes its solution more difficult. One example that he draws upon is that human population growth exuberates all eleven other problems. More people results with more use of toxic chemicals, and demand for wild fish etc.

Diamond concludes that the world's society is presently on a non-sustainable course. He feels that any of the 12 identified unsustainable problems have the capacity to limit our lifestyle for the next several decades.

Hamilton (2003) further demonstrates the complexities of the relationship between economic growth and the environment. He believes that it is common place to observe that material consumption is environmentally unsustainable. Statements that support this argument are that if everyone on this world was to consume as much as the average person in a developed country that we would require four planets the size of Earth.

A counter argument, Hamilton states, often used by economists and business representatives, is that technology will provide the answers to this unsustainable growth. While he states that it is true that technology has helped to provide many answers for example recycling has had a major impact on the use of virgin materials in paper making. But the growth of world economies leads to greater volumes of natural resources and results in increasing amounts of waste. Hamilton draws on a study of the United States, Japan and three European countries to demonstrate his point. For these countries their total output of wastes and pollutants increased by 28 percent between 1975 and 1996, even with substantial efficiency gains in the use of materials.

This example from Hamilton (2003) again re-enforces the complexities of the relationship between economic growth and the environment. In summary, all of these critics outline the complexities of the relationships that are intertwined within economic growth and

environmental health. Due to these complexities it is difficult to assume such a harmonious relationship exists between these two factors. Neo-classical economic theory is often seen by critics as inadequate to address the complexities of sustainable development.

Why neo-classical theory inadequately addresses the complexities of sustainable development

Since the late 1960s, with the arrival of the environmental revolution, came the rise of environmental economics (Cropper & Wallace, 1992). Environmental economics is an application of neo-classical economic theory, and the problems of externalities and the associated market failure have long been a part of microeconomic theory. Neoclassical economists see environmental degradation, such as pollution, as a consequence of absence of prices for these scarce environmental resources. The market prices do not reflect the scarcity of these natural resources, nor the environmental opportunity costs involved in using such resources for short term economic gain.

The neo-liberalism response to the absence of market prices for the ecological system resulted with the further application of internalisation of external costs, privatisation and monetisation of communal resources, quality control and management, a further liberalisation of markets and international trade, a competitive self-regulation of business, and government intervention (Foster cited in Liodakis 2001). It has implemented and debated themes like polluter pays, property rights regimes, treatment of irreversible change and regulations versus pollution charges (Walter, 2002). Neo-classical economists, for example, have applied market based mechanisms to evaluate benefits and cost which are not priced by a market mechanism like emission trading, taxes, and/or effluent fees. Surrogate prices have been established in the form of unit taxes or effluent fees that are intended to provide a signal to the market of the value of this resource, so that the market could economise on its use (Cropper & Wallace, 1992).

Liodakis (2001) has expressed concerns about such market-based solutions to address the expanse of the environmental degradation because they involve such little restructuring of the capitalist system. His particular concern is that the restructuring of property relations to the market, the rearrangement of competitive conditions, and the rationalisation of capitalist accumulation has happened without affecting the impact of capitalist rationality and private property on nature. Priority areas are not only juridical forms of property rights or the valuation of nature but also, importantly, the structure of capital on nature that needs to be considered. If this is not addressed, then the inherent contradiction between future expansions of capital must be that capital accumulation requires resources, therefore natural resources are either used or destroyed. Liodakis states very firmly that it is ' … impossible to ensure the sustainability of capitalism and, within its limits, an essential reconciliation of people with nature' (Liodakis 2001, p. 121-22).

Walter (2002) expresses similar sentiments to Liodakis (2001), in that the methodology of neo-classical economics is too simplistic. It needs to go beyond property rights and valuing nature, even if these are valued solutions to addressing environmental degradation. Walter (2002) sees that when addressing the economic-ecological-socio-political interaction at the regional or community level, the neo-classical economic methodology 'has proven too general and too abstract to be very useful to communities seeking sustainability, particularly in the minds of policy makers and citizens who are intimately familiar with local circumstances' (p. 81). Harvey (cited in Liodakis 2001, p. 120-21) also argues '(t)his way of pursuing monetary valuations tends to break down…when we view the environment as being constructed organically, ecosystemically, or dialectically rather than as a Cartesian machine with replaceable parts'.

Other critics have also argued that there is a need for new economic models to capture the complexities that the concept of sustainability encapsulates (Dunphy 2003; Faber et. al. 1996; Commission of the European Commission 1993). Sentiments are expressed that reinforce a new era of economic models like 'we need a new economics that redefines economic capital to include nature and people' (Dunphy 2003, p. 10). Faber et. al. (1996) expresses the concern that there is a need for models to have a long term outlook due to the nature of human activities on a finite planet. Present models focus on the economic analysis of households, firms and nation states in the short and medium-run. The Commission of the European Communities, in its White paper on *Growth, Competitiveness and Employment* (1993), raised the need to address the insufficient use of labour resources and an excessive use of natural resources, which results in the deterioration of the quality of life. It stated the need to adopt a 'new model of development', in order to address the growing imbalance in the main factors of production – land, labour, and capital.

In summary, Stretton (1999, p. 195) states that long term conservation requires a more radical self-restraint than prevails now, in particular in rich countries. Two kinds of knowledge are proposed to be able to progress this agenda: '(1) technical knowledge of industrial processes and their complicated chemical and other effects on producible, renewable, degradable and exhaustible resources; and (2) political understanding of who is expected to do without present resources for the benefit of which present and future people'. Stretton's proposal clearly expands current boundaries of thought and will no doubt challenge current thinking.

Neo-liberalism has strongly underpinned the development of the concept of sustainable development. However, as demonstrated critics have expressed concerns that neo-liberalism clearly does not have all the answers, and some would debate if it has any answers to be able to progress the concept of sustainability in a genuine sense. Critics have also identified the need to consider new models to be able to capture the complexities of sustainable development.

Conclusion

It has been illustrated that the concept of sustainable development has and continues to be widely recognised and cited. With the concepts origins embedded within mainstream economic ideology it appears to have provided limited advancement in considering the inherent contradiction between economic growth, further capital accumulation and environmental pressure. Sustainable development does not question modern society including its industrial progress, consumption or limits to economic growth. The complexities of the relationships for example between economic growth and environmental well-being are not considered, and as demonstrated these relationships can not be assumed to be harmonious.

It is also important to remember that this concept was about removing the conflict in the debate by suggesting that economic growth and environmental benign could in fact be complementary. Therefore perhaps it is unrealistic to consider that this concept would consider the inherent contradiction between the economic growth and its environmental pressures.

For an agenda like sustainable development, which proposes to reconcile these competing forces with only a limited adjustment of the current systems, this could be seen as 'business as usual' for many Western countries. Unless there is a change in the current regime of economic orthodoxy it is difficult to see any significant advancement in a sustainable future.

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